

[54] **TRANSPARENT SWITCH HAVING FINE LINE CONDUCTORS**

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[56] **References Cited**

U.S. PATENT DOCUMENTS

3,886,335	5/1975	Hendricks	200/159 B
4,066,853	1/1978	Zenk	200/5 A
4,066,855	1/1978	Zenk	200/5 A
4,143,253	3/1979	Wagner et al.	200/5 A
4,360,716	11/1982	Fiorella	200/5 A

FOREIGN PATENT DOCUMENTS

2339460 2/1974 Fed. Rep. of Germany ... 200/159 B

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[57] **ABSTRACT**

A membrane switch assembly for mounting on a cathode ray tube is disclosed. The assembly is comprised of two layers of transparent film having spaced-apart parallel double hairline conductors deposited on the internal surfaces of both layers. The internal surfaces are separated by an insulating ultraviolet curable polymer spacer applied in parallel strips over the conductors, the spacer being discontinuous at the switch sites. The conductors cross and are normally spaced from each other at the switch sites so that when the switch is closed by applying force to bring the two layers of conductors together, the electrical circuit can be completed at any one of four locations. This ensures completion of the electrical circuit even if force has been applied at the outer edge of the switch site.

8 Claims, 13 Drawing Figures

